

Lambert (J. S.)

ADDRESS

PREPARED FOR THE

NATIONAL INSURANCE CONVENTION

ANNUAL MEETING, 1874,

BY

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MR. PRESIDENT, AND

SUPERINTENDENTS AND COMMISSIONERS,

GENTLEMEN:—When meeting your Secretary in Concord, in the early part of summer, he invited me to be present at this Convention and read a paper, I had the idea that I could not expect that pleasure, and said so to him.

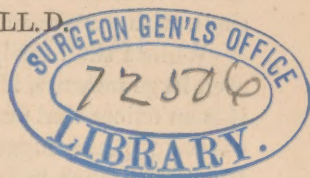
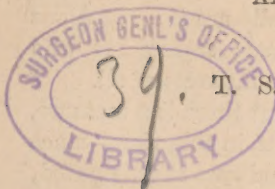
But, as the season wore away, I was glad to find that I could accept the invitation, which had fortunately been an open one, and wrote to him accordingly.

I confess that as I revolved the matter of meeting you together, I felt particularly desirous of presenting to your honorable body several ideas of great import to the public welfare, for the expression of which, it appears to me, that the time is fully ripe.

It might at first appear that, as I am well acquainted with most of you, I could better have visited you in your several offices, and presented my views personally. But it is more difficult for you in private social conversation to bring your minds into the judicial attitude, while it would be quite impossible for me to be as strictly logical and argumentive in a social relation as when addressing a high court of adjudication. Each one here feels a weight of responsibility, whether as speaker or hearer; and it is important that the highest responsibility should be solemnly accepted by all having anything to do with the management of Life Insurance.

The time is not only ripe for a thorough observation of our whereabouts, but it demands in ominous forebodings, that we should know, without any half doubts, whether we are drifting, or scientifically advancing.

*presented by
J. Shady.
M.D.*



The great value of insurance is acknowledged by the people, by the very act of placing it under the supervision of State officers.

That act also distinctly expresses a suspicion that the officers of the companies may conserve the interests of the companies as against those of the insured, and their own as against those of the companies; to wit, that the unenlightened self-interest of the officers jeopardizes the rights and property of both the Company and the assured, and that therefore the business should be supervised by other supervisors than those who theoretically are the guardians of the interests of both Company and insured; supervisors who shall, with pure disinterestedness, conserve the interests of all.

While I shall freely, yet earnestly, allow that there is a measure, even large measure, if you insist upon it, of truth in this view—since it is an axiom that unenlightened self-interest is always short-sighted,—yet I will also suggest that there is another unenlightened self-interest that much more strongly threatens the safety of life insurance contracts than does any real or suspected act of the managers of the companies.

I do not wish to be misunderstood, and certainly not to be misrepresented because I speak with freedom, with entire frankness, before this honorable body. I do not wish to be thought, nor said to speak adversely to the most stringent State Supervision.

Whatever my opinion is upon that subject, I do not argue it *pro* nor *con*, but ask to be allowed to assume that it is desirable, and to argue in that view in regard to its true functions.

We have, one and all, I am sure, but one object, to wit: the making of the business secure and beneficent; we shall all shake hands upon the motive which actuates us.

I am thus careful to guard against erroneous deductions, because I know that new ideas often startle the imagination and induce irrelevant deductions, when more familiarity with the same ideas not only robs them of their startling novelty but shows them to be angels of light; they are also apt to seek utterances in strong expressions. I do not mean that I shall speak words the off-spring of momentary excitement, quite the contrary; the ideas have been conned until they are like the pictures in old Noah Webster's spelling-book; apparently something ante-natal.

My first proposition is, that of all the jeopardies to which life insurance is exposed,—great and fully realized as is that to which it is subject through the temptations acting upon officers of companies,—the greatest are the very laws which have been instituted for the express purpose of rendering the institution secure.

I desire to argue this point here, not because this honorable body, or any of its members, were or are responsible for those laws, at least not for their inception,—since none of those constituting this convention were either the fathers or the god-fathers of the ideas which induced the institution of the present insurance laws,—but because, although I believe this doctrine true, some of you may not, and I wish to convert any unbeliever to what seems to me to be the truth.

But I would have *you* converted to this specific truth, not as I would have all men receive it, but because in regard to it you are by your official position a mighty power in the land. If you cannot have the law changed so as to fulfil truly its intention of being a safeguard, you can have it so modified that it will not be an instrument, as it now is, necessarily productive of jeopardy to this great interest which it was intended to conserve.

Nothing can be good which is not true, nothing can be permanent nor useful which is false and not based upon a scientific foundation. But such “a goodly seeming falsehood hath,” in many cases, that we are often led to place reliance upon what will prove an unsubstantial basis.

Are then the bases upon which all the life insurance laws in all the States are founded, true or false?

False, I say, not having the first iota of science in their engendering, and, in their outworkings they are expensive, inequitable and insecure.

Not one of the assumptions of the laws is scientifically assumable, and, therefore, they must work with friction, expense and hazard.

I will first illustrate by what will, must, deeply interest you.

The law assumes that there is an increment of the risk of dying in case of each person, with each year of age. All its computations assume this error as if it could not be debated, and, as one actuary said, when he heard the correct idea broached, “That may be true, but, if it is, What will become of all our calculations?”!

That there is an increment of risk to each person, with each increasing year of age, is a dogma without even a shadow of truth for its foundation.

Its apparent truth is produced by an abnormal, illogical process of reasoning. It is produced by including within those observed, persons of severally different capabilities of living, and by distributing equally among all, the risks which belong only to a few.

I will illustrate my meaning. Suppose, White, Brown, Green

and Black, each 30 years of age, are averaged in regard to the risk of dying that year?

White has, I will presume, no chance of living through the year, and his real risk of dying is therefore 1,000 in 1,000. Brown, say, is sure to drop off within two years, and say that his chances are equal between the two years—that is his risk that year, is 500 in 1,000; while Green and Black are in every respect best grade risks, not exceeding 2 each in 1,000. All together have 1,504 chances in 4,000 of dying in that year, or 376 in 1,000, and their net premiums, correspondingly averaged, would be expressed accordingly as \$376.

The absurdity of such a procedure is so plainly seen that this illustration can hardly be believed to be a fair one.

To remove any such impression we will suppose White's risk to be but 30 to 1,000, Brown's but 20, and the other two as before. This supposition gives in all 54 in 4,000 or 13.50 chances in 1,000 to each. This looks so near like the ordinary figures in the table that it is not at all startling and is readily accepted, especially as the decimal .50 gives an appearance of great exactness.

Yet, in fact, this illustration is as absurd as the other, and the error is precisely the same in each supposition.

I am quite aware that these are crude illustrations in one view, but they are perfect in another, that in which I wish to use them. I am also quite aware that it may be said that the small number of persons in these illustrations prevents their application to a case where the very point is to have the average among a large number of persons.

Because sometimes we are apt to think a person ignorant or thoughtless, I will notice this objection, for, although it has not any validity, it will aid in illuminating the very error that I am combating.

The apparent necessity for having an average made among a large number arises from the assumption that these persons will be very different in their characteristics—and a large number is taken in the hope that thus a sufficient number of superior risks will be entangled in the scoop-net to bring up the average of the inferior risks. In results this is always an uncertain, unreliable assumption.

It is a fundamental law of mathematics that ratios can be instituted only between quantities having the same unit.

The persons compared and adjusted must be very similar to each other in order that there may be any equity or security in the work, since, if latitude is allowed, there is always a tendency to accept the inferior—too largely; but if the proposition is to select together

those who naturally are alike capable of living—like Black for example—the task is easy, as it also is if they are to be like White.

The tendency or the necessity to die during any year is dependent upon two causes—one inherent the other incidental. The former we are bound to look up, since the indications may be found either in the ancestral record or in the person's own constitution.

To announce the correct formula will, perhaps, best bring out the point that we wish to exhibit.

Every life, every living thing, has a plateau of life, that which may be called its constitutional longevity, at the end of which, at best, it *must* die—its earlier death is incidental.

This fact is seen in every plant, in every animal; it exists none the less in man. It varies in species, in varieties, in individuals.

As we always insure individuals, the individual indications of probable longevity are always what we wish to know.

Perhaps there is no living thing in which there is so much variation as in case of men. Their several natural plateaus of life, with only incidental risks of dying, range from a moment up to an hundred years. This great variation has, probably, been the reason why the idea has gained ground that the uncertainties gathering about man's life are more numerous than they really are, and has induced too many deaths to be attributed to incidental causes, when the prime cause was in their natural constitutions.

As the persons with varying natural or constitutional longevities have been observed together, and as a larger number are born to die naturally at forty, in proportion to those born to survive forty, than there are of those born to die naturally at thirty, in proportion to those born to survive thirty, of course the increment shown in the mortality tables must exist when they are based upon the deaths of all these people aggregated. To fully account for the increment, or its irregularity, we must go back to the source thereof, in the ancestral tendencies.

It appears then, that, because persons have the common names of men and women, it is not to be assumed that the same facts are to be predicated of each and of all in regard to the probabilities of living or of dying, but that the general idea which we all have in regard to different kinds of living things, and in regard to different races and families of men, must be applied to individual men and women.

We must not think that the same liability pertains to all persons, but we should perceive the fact that a very different liability may pertain to different individuals—who may have not only different

capacities of resisting death-causing tendencies—at any one time, but for different periods of time: thus of two men, there may be no more present liability to death in one case than in the other, yet this condition may naturally continue only for a short period in one and naturally for a very long period in the other.

This proposition may also be varied, to state that of these persons one may be a large risk with one variety of conditions about him, and the other risk not increased, but perhaps diminished thereby. So that the plateau may be looked upon in a double light; as absolute, and as contingent, and in both these aspects must the case of every individual be considered, and his risk must be determined accordingly.

I will use an *ad hominem* illustration of this idea.

Is there any one here who supposes that your worthy Secretary—merely because he is one year older—has any more risk of dying this year than existed in his case last year?

Judging from his “make up,” and knowing nothing of his history, I should say that his apparent plateau had improved since he was 25 years of age, and that, although many years older, he has not actually as much probable risk of closing his life this year as he probably had at the much younger age mentioned.

I know that it is said that the machine gradually wears out and that each hour brings us nearer to the grave.

Herein, however, are two ideas blended—one of which is true and floats the other which is not correct.

The human machine, if rightly treated, does not “wear out.” It will wear or rust out by *non-wear* the quicker. Nor does it take on an increased liability to die year by year until it has reached the verge of its plateau. Some seem hardly to have a plateau, since their strength increases from year to year for many years, while others have a gradual diminution of strength; and again, others have many plateaus, now higher now lower. But the long or short plateau, with a more or less sharp declivity towards the close of life, is the natural constitution of most persons.

Is a horse any more likely to die when nine than when eight years old? Is a rose more likely to fade or a vine to die with each added hour of its prime of life?

True, all living things are nearer to their death by each passing moment. So, if a man takes a policy payable at death, or at any specified age, the “level premiums” assessed must be larger at each higher entering age, as the premiums will be fewer with each year of age, and therefore they must be larger to equal the same assurance.

That is probably why the minds of many have become so deeply fixed on the general idea that there is an increased risk of dying each year in case of each person. But the idea that each added year of life diminishes our distance from the grave is very distinct from the yearly risk of dying, and *per se* has nothing whatever to do with it. These are two distinct facts, although in some individuals they may be coincident.

Should a person have only the same risk of dying each year during all the period of an endowment taken at 50 and payable at 60, yet there must be higher premiums than if the policy had been taken at 25 and was payable at 60.

As soon as the endowment idea is withdrawn from the view of the mind's-eye, and it is fixed upon the true proposition that, as a rule, there is a discernible, a computable plateau of life natural to each individual, varying from a short period to four score years and ten, the correctness of the idea is at once recognised. At least with a very little consideration, it is perceived, that the whole philosophy, and the exemplifications of the increasing risk of dying at each age, in case of each man, has no foundation; if this be true of each man, then is it certain that it cannot be true of any group of men, unless each man of a group has been properly assorted for the purpose; doing which must be primarily and conscientiously dependent upon a proper measurement and adjudication of each risk.

Yet all the laws, all their assumptions, and all their computations, by which reflections or comments upon the solvency, integrity, and standing of companies and their officers are made, have for one of their basal elements, this serious fallacy, that there is a regular increment of liability to die with each year of age.

Nor is this fallacy peculiar to the laws. It saturates the minds of all the writers, speakers, thinkers, and formalists of life insurance, who would doubtless be nonplused if told to leave the increment idea out of their minds.

One voluminous writer, ridiculing his brother professionals in Great Britain, says, "They vastly magnify the importance of further scientific observations to ascertain the *law of the decrement of human life, &c.*," not perceiving that the great error of thinking that *any* "law" exists was common to himself and to them.

The complete and undebated acceptance of this error is the more surprising since it is positively contradicted by the results of "medical selection," even as generally applied. This at once interferes with the increment, retarding it for a less or greater number of years. Now, as the "medical selection" does not increase the

length of the lives selected, it must merely, to a degree, distinguish those who are naturally longer-lived than those discarded.

It may be said that the selection only discards those who have become inferior risks through incidental causes. But all know that if a person is perfectly sound at twenty-five years of age, but whose mother—whom he much resembles—died of consumption at 30, no medical examiner would be so ignorant as to recommend his insurance, at least until that age is fully passed. Here we have a case of a well defined plateau expected—or prevised—and only a corresponding but more complete knowledge properly applied is needed to prewise with greater certainty the probable plateau of most men and women. Most of them do not sicken and die from incidental causes, but three-fourths to four-fifths of them die near to the age at which some ancestor died, and of the same class of diseases.

It is also to be noticed that no man is a perfect unit in regard to the natural longevities of all parts of his body, for while one part may naturally have a long-lived plateau, another part, perhaps of the same organ, may have a very short-lived plateau, and, if of sufficient consequence in the human economy, it will, by dying, commit homicide upon all the naturally long-lived parts. This is illustrated by what we every day see.

The roots of some of the hairs in some persons live out their full period in early life, and dying, never regrow. While other hair-roots or glands of the same person inherit a long-lived vigor that is gratifying to the possessor.

It is often curious to notice how certain special small spots will become bald early in several generations; also how the whole head is bald, or has thin or thick hair, or a spot of gray hair, following the ancestry most curiously in instances. This proves that the secretory tissue of different hairs may naturally have very different lengths of life, and that these differences are owing to inheritance.

It is very seldom that slight or extensive baldness is produced by incidental causes, and no one expects such a result often; neither should we reason otherwise about the causes of short or long life in other parts; it is related to the natural plateaus of their life. Some of the gastric tubes or glands of the stomach may be short-lived naturally, while others may be naturally long-lived; the same may be said of the cells of the liver, or of the lungs, or of the parts of any other organ, which is so evident in regard to the hair roots, bulbs, or glands.

It is therefore perceived that the longevity of any person is not to be estimated by the indications of great longevity in some parts

only, of his body, nor is his longevity a resultant or average of the various plateaus which are natural to his different organs, but it is an individual matter, depending upon the shortest-lived plateau of any parts essential to life.

These doctrines are not new to some of you now, but are accepted. I am also happy to say that they have not met the misfortune that most new and practical ideas do meet, for they have been accepted heartily, and at once advocated, so far as I know, by every medical man to whom they have been submitted; indeed they appeal so strongly to the scientific sense, harmonize so completely with the experience, and so clearly explain the daily observations of every medical man that, as soon as apprehended, they appear self-evident to him.

This doctrine or idea of diverse natural plateaus and longevities in different persons, and in different parts of the same person, is also intensely interesting, very satisfactory, and of the greatest importance, in all its modifications and ramifications, to every non-professional man, since it affords to him also a simple basis for the explanation of many observed facts which vitally concern him, and which otherwise seem to be fortuitous or mysterious, and not amenable to any law or correlation; for instance, it instructively suggests that, if a considerable part of an organ is incapacitated, no matter what the vigor of the other parts, the person must do no more of anything than corresponds to the remaining capacity of that organ, or he will suffer, and perhaps die, when by care in regard to the amount that he does, he might live for many years, etc.

It also suggests an explanation why a person at one time of life will succumb to incidental causes of disease, when he escapes their influence at another time, and again, others are exempt to a very high age. A vocation, residence or habit may, therefore, to one man, family, or to a whole neighborhood of people be apparently innocuous, while to others the same will be deadly. To those who are naturally long-lived in all their organs the frequent use of alcoholics seems not to be harmful, and, although really injurious, at least never useful, the evil works so gradually that more than one generation will usually be required to show deleterious accumulations of the bad influences which will show themselves in a short time in bodies, the longevity of parts of which are in the process of terminating. If, therefore, we see persons living to a high age using liquor, or indulging some other bad habit, the long life does not argue in favor of the bad habit, as at first appears to be the case.

Again, some, all of whose organs are short-lived, will have none

which are much shorter-lived than the others, and while they live, therefore, show just as remarkable vigor of health, as those who are naturally very long-lived, and will, during this time of their life, or until near its close, naturally resist all the incidental causes of disease equally with the best; but as a rule, those who are naturally long-lived, or first grade risks in regard to longevity, are also first grade in respect to vitality or power to withstand unfavorable conditions for the time being, while those inferior in regard to longevity are also usually inferior in respect to vitality.

It is evident, therefore, that what are called extra hazards will almost uniformly be much more so to the naturally short-lived than they are to the naturally long-lived. Even on the battle field, where it would be supposed that fortuities would be distributed impartially, the longevity and vitality of superior risks often carry them home alive, when the inferior risks will die. True, if a large cannon ball should squarely strike the head of a natural candidate for ninety years, it is not argued that his chance would be any better on account of his ancestry, constitution, or habits, than that of an inferior risk; but half a dozen bullets might, as has been known, pass through different parts of his body without causing death, which would be induced in an inferior risk by merely the shock caused by a single one.

In some cases of great prospective longevity, and present vitality, persons have been known to pass through visitations of yellow fever, cholera, and the like, even tending the sick with impunity. These, and like instances, prove that risks are individual, and that the law and the books are fallacious in assuming that large numbers of risks wide-spread are an element of security, and an essential basis for insurance. That depends upon their character. Have not some of the Companies found that risks at ordinary premiums spread through the South did not cover their cost? Would not one hundred average risks in New Hampshire make a more secure Company than five hundred of those averaged with five hundred risks in the South, or in most of the Western States?

I know it is said that epidemics may rage in one section, especially if small, and invalidate security, and the question is often put,—Where would be the security of insurance if a wide spread, devastating epidemic should prevail? To this the books have no answer. But I answer that epidemics *prevail* only among inferior risks, and in whose constitution the epidemic finds a favorable condition. The best grade risks withstand the unfavorable influences so well that security will not be invalidated by them, and the in-

ferior risks must be charged a premium covering their risk, and so few of them insured that they cannot disturb the security; (by inferior I do not here refer to unsound risks, but to those who are sound and usually insured as good, are so for the time being, but who will not last.)

It is a burlesque and mockery of science to assume for a moment that all men and women are equally amenable to epidemics, or to other incidental causes of death. Indeed the causes thus called are not really so except in a few cases; the so-called incidental causes are also usually combined with constitutional conditions favoring disease. Hence in one season we notice many sudden deaths, in another season many lingering cases die, in another the very old drop off in unusual numbers. So also we see in one long settled section of our country that nearly all persons have light complexions, hair, etc., and in another they have dark hair, complexions, etc.; partly owing perhaps to inheritance, but chiefly owing to the fact that the observed hair and complexions are the "fittest" for the section; those who had other constitutions dying out through the effect of the unfriendly condition. Peculiar constitutions must therefore seek the conditions "fittest" for them.

It has been said that statistics show that a somewhat larger proportion of Jews than of Christians attain 70 years of age, which is doubtless true; but it is also true that a hundred times larger proportion of Christians than of Jews attain 90 years of age.

The western part of Vermont, touching upon the mountains, is one of the healthiest sections in the world, having very little sickness, most of those born there attaining a moderate old age, yet very few reach extreme old age, compared with the number in Eastern Vermont, which again is much exceeded by New Hampshire, which bears the palm in all the world for the proportion of the very long-lived among its native inhabitants. Its original settlers were the select of the select long-lived.

Thus in every case the antecedent inherited constitution is the foundation, the *sine qua non*, to which incidental causes are secondary, and of which they are only modifiers.

I am often asked if I mean that the plateau of life corresponds to the "expectation of life." Not at all.

The "expectation of life" is another of those grand fictions of the slate and pencil that has no reality, nor any utility, but which, like all untruth, if believed and applied, will be apt to do much harm.

"Expectation of life" means the averaging of many so utterly

unlike that the result is exceedingly unjust if applied, as it not unfrequently is, on account of the unfortunate exaltation which the idea has received.

By this idea of "life expectation," all of you gentlemen at birth were said to have no more "expectation" than any of the good-for-nothings born the same year with you, and who could not, by any possibility, live the year out. What nonsense to make up any such averages, and then dignify them with the name of "vital statistics."

They are as valuable to be sure as most of those tabulations and deductions which pass under the same name, and the figuring of which gives a look of profoundness, that pseudo-science is often able to exhibit, deceiving the public, and, doubtless, not unfrequently itself.

This "Expectation" of life also, as from its method of production must be the case, is constantly changing with each year of life. At birth a man has 40 years "expectation," but at 40 he has yet 26 years "expectation."

The natural plateau does not vary. It is individual. It is that stock of life which belongs to the constitution. It is a man's physical capital, upon which he should base all his financial calculations, providing by insurance against the unavoidable incidental contingencies which otherwise induce anxiety, which diminishes his labors as well as his happiness. To insure against these contingencies is the function and the only province of life insurance.

To insure beyond the plateau period, and against natural or necessary death, will always cost a man or a company too much. It is the business of the latter to avoid such business.

"Expectations" are always based upon inequity, "robbing Peter to pay Paul," and although Peter cannot lose nor Paul gain any real length of life by the averaging, which is the basis of "expectations," yet, by the application of the "expectation" idea, money can be and often is unjustly taken from one and given to another by "due process of law." The wrong and unscience of which is well set forth by one of the eminent lawyers of New York City, R. L. Guernsey, Esq., as follows, in part :

"These tables are still used by all courts in England and in the United States in estimating the value of life annuities in wills and on dower rights, and in case of all life interests in property where a gross sum in lieu of such interest or income is paid to the party who is entitled to it.

"The mode of calculating the probable length of life by the tables was at that time the best at hand, but now we see that it is very unjust to the *healthy* and notably long-lived in all cases ; for, as we before said, all

classes of individuals and deaths by all diseases were included in these calculations."

"It is apparent that justice demands that it should not be so. Why cannot a statute be passed so that the question of the probable life of a particular individual may be tried or inquired into by a judicial investigation, and have the annuity calculated upon the probable length of the life so ascertained of that *particular individual*? This is a proper subject for the Medico-Legal Society of New York to consider, and let it also propose plans by which this may be accomplished, and justice rendered."

We will add an *ad hominem* illustration :—If the Hon. Deputy Commissioner representing Massachusetts, should have occasion to settle some property matter in Court, say pay the present value of money falling due at his death, would it not be a perfect absurdity to compute that value by averaging his probable life with that of all other men of his age; or to charge him a premium for insurance upon a similar basis? It might perhaps answer to average him with the Hon. Commissioner from Kentucky; but dissolve his probabilities with those of the whole public, and he loses greatly and unfairly.

We have received different inheritances naturally. This is a necessity, and neither to our credit nor to our discredit; yet to possess a favorable physical inheritance is a superlative advantage better than gold or silver, indeed better than any and all the other possessions of earth. To appreciate the fact is important; to be deprived of its enjoyment by any error or fiction, especially of law, is wrong. Surely Insurance Departments, whose particular business is to study these things, should discard and condemn the baseless formulas and ideas which rob a man of his heritage.

In conclusion upon this very interesting and, in regard to life insurance, all important topic of my address, I will say that the plateau of life or of organs does not correspond to *longevity*; it would be more nearly, yet not correctly, expressed by *vitality*. Longevity means the whole life; probable longevity means the period to which *similar* lives will reach upon an average—the actual "expectation" of similar lives. A plateau refers to the period of life during which the life having attained the highest vigor possible in the given case, continues without increment or decrement of the risk of dying yearly. Its vigor may be great or small, and the period long or short, or there may be a combination of these. It may be very weak and easily overcome by incidental causes, yet by care may have great longevity; it may be very vigorous but very short; it may be weak and also necessarily very short-lived; it may be wonderfully enduring both in vigor and longevity.

The plateau does not usually begin until the early unproductive period of life is past, and usually its termination marks the time when the second unproductive period begins. The *plateau*, therefore, corresponds usually to the *productive*, the *insurable* period of life, all three being shorter or longer in different persons; an earlier or later insurance has usually no reason, is an expense without use, is a name and not a reality. The plateau is therefore both qualitative and quantitative; it is the business of medical insurance supervision to measure both the vigor and duration of the plateau; the amount of its risk being thus determined, protection can be afforded most favorably to the assured coincident with perfect security to the company.

I will now point out another fallacy of a basic legal assumption, of which there will not be any doubt in your minds as soon as your attention is directed to the matter, for you are all familiar with it. I am surprised that it has not furnished a topic for comment oftener; indeed I do not know that it has ever been touched, except in an able Report of one of your committees.

Almost every State Report notices the great number of lapses. Is it not certain that always, and in all companies, there have been and always will be, many lapses?

But does the law allow you when computing the standing of a company upon the legally assumed basis, to assume a certain per cent. of lapses? Does it not enjoin you, on the other hand, to assume that *every* policy will surely continue according to the name thereof, unless terminated by death according to the assumed legal ratio? Yet nine-tenths of those very policies will not be continued fifteen years from their inception. We are told that an average continuance of the policies is only eight years.

What an absurdity to assume a mortality to which the insured will be subject, which is uncertain, to assume a rate of interest which a company will probably receive fifty years hence, also uncertain; yet not assume any lapses, some of which are certain to occur,—still worse, to assume that there will be none!

Gentlemen, permit me to ask, with the utmost courtesy, if you have ever computed the improved standing of any company effected by assuming say fifty per cent. of the lapses that you are certain that it will have? Is it not quite possible, even probable, that a number of those numerous lapses which you deplore, would have been prevented by the improved standing produced by the just assumption suggested? Would not, by the effect of these two results, some companies have achieved success with less hard work?

Indeed it has been said by one influential insurance journal that "there have been times in the lives of all the old Companies when they would have succumbed if the present laws had always been in existence; and that no Company can start now and reach maturity." Not quite true, yet this is a matter of great moment. No company should be branded if it really deserves applause.

It is a very serious thing if the safety of a business demands that it remains a franchise in the hands of those who have it; if, however, this wrong is produced solely by an abnormal law, it can be changed; if it result from a wrong application of the law, that is still more easily corrected.

I will venture to ask, without any disrespect to the law, if it is in accordance with the golden rule for the law or its application to misrepresent by one iota the standing of any Company?

I will now call your attention to another fallacy of the law with which all of you are acquainted.

We see general mortality tables beautifully graded from birth to one hundred years, as if, with each yearly trip of old Sol round the Earth a regular number of mortals, by mathematical clock-work, were called upon to "pass in their checks."

Again, we see mortality tables of those said to die while *insured*, which look very much like the "general mortality tables."

Yet, when we examine the facts we find that very few, if any, are insured when very young, and few remain until old age, so that the figures are purely assumed in both extremes of the tables, and we are sure of this when in one experience table the last man of all the assured dies at 95, while in the other the same fact is shown at 99.

Yet the law accepts these figures as correct, and *assumes* data based thereon, multiplies those with other *assumed* data, and then *assumes* that a company is or is not sound, or solvent, according as it appears to tally with the figures which are the outcome of the aforesaid composite and complex processes, but for which, in reality, as we see, there are *no data*. Is it not strange, is it not passing strange that matters of such very grave importance should thus rest upon the "baseless fabric of a dream?" Is it not a marvel that such a *figment* of the brain, or such a *cunning device*, if you like that term better, should ever have been accepted as a *reality*?

Men do not die in the world at large, in accordance with the general mortality tables, still less do those who are insured. The numerous high ages given by the general collectors of vital statistics are very apocryphal.

There are very few who live to be an hundred years of age; still more unfrequently does any one pass that age. There are not, probably, a dozen persons an hundred years old in the United States—and there is no probability of there being one aged 105. There are not probably 50 persons in our whole land 99 years old. Yet, by the Actuaries' table one person in every 100,000 born must attain to 99.

The relevant significance of these facts will be appreciated, if it is remembered that, upon these conjectural and very erroneous mortality tables, all the computations of the ordinary or *level* whole-life premium tables of the companies, and also the amount of the corresponding "reserve" required by law, are computed; the whole of which would be much modified, higher or lower, by the facts.

Following this thought will bring into full relief another fallacy of the law, and its awkward effects.

I will illustrate:

You have before you an "experience table" of mortality, showing, in column A the ages from 25 to 99 inclusive, and in B the number of deaths per thousand persons dying at each age.

A, Age. B, Deaths, per thousand persons insured; also, adding a dollar mark, it shows the "net" cost premiums at the end of the year (to be discounted, to show them at the beginning of the year.) C shows 40 per cent. added to B. D shows 25 per cent. added to B. E shows the level, uniform, fixed whole life premium, loaded 40 per cent. from 25 to 65.

A	B	C	D	E	F
25	8.10	\$11.34	\$10.13	\$19.89	7.80
26	8.10	11.34	10.13	20.40	7.90
27	8.20	11.48	10.25	20.93	8.00
28	8.30	11.62	10.38	21.48	8.10
29	8.30	11.62	10.38	22.07	8.30
30	8.40	11.76	10.50	22.70	8.40
31	8.50	11.76	10.63	23.35	8.60
32	8.60	12.04	10.75	24.05	8.70
33	8.70	12.18	10.88	24.78	8.90
34	8.80	12.32	11.00	25.56	9.10
35	8.90	12.46	11.13	26.38	9.30
36	9.10	12.74	11.38	27.25	9.50
37	9.20	12.86	11.50	28.17	9.70
38	9.40	13.18	11.75	29.15	9.90
39	9.60	13.44	12.00	30.19	10.10
40	9.80	13.72	12.25	31.30	10.40
41	10.00	14.00	12.50	32.47	10.60
42	10.30	14.42	12.89	33.72	10.90
43	10.50	14.70	13.13	35.05	11.30
44	10.80	15.12	13.50	36.46	11.70
45	11.20	15.68	14.00	37.97	12.20
46	11.60	16.24	14.50	39.98	12.80
47	12.00	16.80	15.00	41.90	13.50
48	12.50	17.50	15.63	43.13	14.30
49	13.10	18.34	16.38	44.09	15.10
50	13.80	19.32	17.26	47.18	15.90
51	14.50	20.30	18.13	49.40	16.90
52	15.40	21.56	19.26	51.78	17.90
53	16.30	22.82	20.38	54.31	19.10
54	17.40	24.36	21.75	57.02	20.30
55	18.60	26.04	23.25	59.91	21.70
56	19.90	27.86	24.88	63.00	23.10
57	21.30	29.82	26.63	66.29	24.70
58	22.90	32.06	28.63	69.82	26.40
59	24.70	34.58	30.89	73.60	28.20
60	26.70	37.38	33.38	77.63	30.30
61	28.90	40.46	36.13	81.96	32.60
62	31.30	43.82	39.13	86.58	35.10
63	33.90	47.46	42.38	91.54	37.80
64	36.90	51.66	46.13	96.86	40.80
65	40.10	56.14	50.13	102.55	44.10
66	43.70	61.18	54.63		47.60
67	47.60	66.64	59.50		51.50
68	52.00	72.80	65.00		55.60
69	56.80	79.52	71.00		60.10
70	62.00	86.80	77.50		64.90
71	67.70	94.78	84.63		70.20
72	73.70	103.18	92.13		75.80
73	80.20	112.28	100.25		81.90
74	89.00	121.80	108.75		88.50
75	94.40	132.16	118.00		95.60
76	102.30	143.22	127.88		103.20
77	111.10	155.54	138.88		111.50
78	120.80	169.12	151.00		120.40
79	131.70	184.38	164.63		130.10
80	144.50	202.30	180.63		140.40
81	158.60	222.04	198.25		151.40
82	174.30	244.02	217.88		163.20
83	191.60	268.24	239.50		175.90
84	211.40	295.96	264.25		189.70
85	235.60	329.84	294.50		205.10
86	265.70	371.98	332.13		222.50
87	302.00	422.80	377.50		242.20
88	346.70	485.38	433.38		265.30
89	395.90	554.26	493.63		292.40
90	454.50	636.30	568.13		323.70
91	532.50	745.50	665.63		361.00
92	634.30	888.02	792.87		405.30
93	734.20	1027.88	917.75		457.20
94	857.10	1199.94	1071.38		516.30
95	1000.00	1400.00	1250.00		584.30
96	.....	.....	.....	.....	648.60
97	.....	.....	.....	.....	692.30
98	.....	.....	.....	.....	750.00
99	.....	.....	.....	.....	1000.00

F, "Accumulated Experience" of deaths per thousand in 17 English Companies; column dollars and cents and discounted, it shows the "Net" Premiums.

Prefix a \$ mark to column B, and you have the dollars and cents of "net" premiums (not discounted).

Add respectively 40 and 25 per cent. of themselves to the figures of col. B—called dollars and cents—and you have columns C and D.

Trace C to the highest age, 95, and there stands the very "gross" premium of \$1,400, receivable by a company, with which to pay \$1,000 at death! \$1,400 premium to insure \$1,000 one year!! A sum of assurance less by \$400 than the insurer pays as premium. That is to say, he merely insures himself and pays \$400 for the precious privilege.

But it may be said : That is only a harmless proposition, no one would pay any such sum. Certainly not, if presented in that bald manner ; "nor in any other way," the outside world would say.

But the members of this convention understand the facts too well for me to expend precious time in explaining them. I would merely say a word or two in illustration of a few grotesque aspects of the matter before us that you may not have noticed.

It is very apparent that a person would not wittingly pay such a large premium as \$1,400 on \$1,000 assurance at 95, nor at any time, even if wanting insurance. But the world at large do not understand that when they pay whole-life-*level*-premiums, of any number of payments, they pay a part of this aforesaid enormous premium, in each and every of the early years of their policies. They are not aware that these enormous premiums, that every man would be too wise to pay when due, are raked back and *leveled* over the early years of their policies to produce "*level* premiums." They are not aware that they are asked to pay a part of a premium 70 years before it is due, which, when due, is \$1,400 to insure \$1,000 for one year !

Does the man at 25 have the least idea that when he pays his "*level*-whole-life-premium" he is paying seventy years in advance, a part of what, with other contingents, will, at a low rate per cent. interest, amount to \$1,400, and then yield to him only \$1,000?!

Let also the other premiums of the other high ages of C attract attention and elicit comment.

How much is the grand total of premium money called for by the column C, in its highest 20 years ? The incredible amount of \$9,946.62 !!! to insure only \$1,000 during those years, or to insure \$10,000 the premium will be \$99,466.20 !!! "A good investment" forsooth !

This might be called farcical if that word had not been already appropriated to ridiculous absurdities of a somewhat higher grade.

Recall the premiums of the highest five years;—at 95, \$1,400; at 94, \$1,199.94 (I like to be exact when reading *scientific* matters, hence, I mention the cents); at 93, \$1,027.88; at 92, \$888.02; at 91, \$745.50, in the aggregate, \$5,061.34! to insure \$1,000 five years!!

This cannot be called farce, it is nothing short of high tragedy, when a young man, from his hard earnings, at 25 years of age is asked to begin to pay 70 years in advance parts of such monstrous premiums for the “beneficent purpose of protecting his dependent wife and little ones!” I have no heart for laughter when I think of the thousands and tens of thousands who have, noble souls, been beguiled of their savings in this fashion; my laugh turns to a deep indignation; to a profound execration of the inventions that have betrayed the holy cause of life insurance into such disgraceful absurdities.

Cicero says that the “Diviners of Old Rome could not look each other in the face without laughing.” What would he have expected of those who concoct “mortality tables” out of imaginary data, and compute over \$5,000 as the essential premiums for insuring \$1,000 for five years, and then manage to so hoodwink people as to have them pay parts of that enormous amount in their early years before the evil days draw nigh, when they shall say “it is not convenient!”

But as the law only uses “net” premiums, it may be objected that I have made a “gross” display.

We will then take the “net” column B. In this, at 95, only \$1,000 is demanded; at 94, \$857.10; at 93, \$734.20; at 92, \$634.30; at 91, \$532.50, in all \$4,158.10 to insure \$1,000 during five years!

This is, according to the computation, the exact “net” cost, and which must be paid during those years or in advance; and all who insure by “whole-life-level-premiums,” the most common form of policy, are asked to pay a surplus during all the early years of their policies toward making good those monstrosity “net” premiums.

And the *law* countenances this by permitting such policies to be made, computing reserves therefor, and still worse by not denouncing all such iniquities and inequities.

I know that it may be said that a part of these high premiums are provided by the surplus paid above yearly cost by those who die, or otherwise retire, that dividends will offset, etc., etc.; but this idea is the most baleful and demoralizing possible. The wish to profit by the misfortunes of others should be checked, not encouraged; no profit should be allowed as right which is not squarely earned. But admit all of this that can be claimed as favorable, and how is the case really changed at all?

I wish to ask this intelligent and disinterested body of gentlemen, if this method of computing premiums and conducting life insurance business is not simply abominable, a disgrace to the age in which we live, and if it ought not to be "consigned to the tomb of the Capulets?"

But the mention of "Net" and "Gross" premiums suggests another fallacy or two of the law: It will be noticed that a per cent. "loading" of the high ages produces a very large amount—at 95, \$400. Yet the law takes no note of this amount, assuming that it will all be needed for the general expenses of the Company.

But if the policies continue, in accordance with the assumption of the law, will there be any need of the great amount of loading as per column C? Ought not a portion of that at least to be allowed to the credit of any company requiring of policyholders that excessive amount, which most companies do require?

Is there any wonder that the actuaries of high and low degree hold warm contests over the point, whether the solvency of companies should depend upon "net" or upon "gross" premiums, or upon a mean between both?

But our thoughts in this connection tend to note the very great difference between the amount of the "per centage" loading of the high and of the low ages.

For while at 95 the loading is \$400; at 25, it is only \$3.24; again, at 53 it is \$6.52, or twice as much as at 25. Is it not worth as much to do the business at 25 as at 53,—or at 95, even? Yet at 95 it appears by the computation to be worth more than 100 times as much as at 25.

But again, when we notice the surplus added to the natural premiums of the lower ages to produce the *level* premiums of those ages, we notice that the "loading" of that surplus is a very large ratio of it, as of course it must be to produce the enormous loadings of the high ages, especially as they are computed at a very low interest. I will illustrate:

Suppose the *level* premium of an annual-for-life policy, at 25, is \$19.89, see col. E., and the natural premium by the same ratio of loading, column C, is \$11.34, making \$8.55 difference,—the surplus paid, as is pretended, for the future use and behoof of the party assured (?)

But the fact is, as you all know, that this \$8.55 is composed of two parts, the "net," \$6.11, and the loading, \$2.44, (in the same manner as the \$11.34, column C, is composed of \$8.10 "net" and \$3.24 loading,) and the entire amount reservable for the use and

behoof of the assured is only \$6.11. He pays \$2.44! to the Company for conserving the \$6.11 at four per cent. interest, until it, with other like sums paid in to the Company, shall equal the enormous "net" premiums of the high ages before mentioned, (70 years).

But at the age of 53 the *level* premium is, by the same ratio, \$54.31, column E, or \$31.49 more than the premium \$22.82, which, by column C, is seen to be the real premium for that year. Of this \$31.49 one part, \$22.50, is "net," the loading of which is \$9.00. This the party pays for the gracious privilege of having his \$22.50 cared for at four per cent. interest assumed, until at some dim distance in the future the company, if living, shall use it for his behoof.

If this loading \$9.00 is added to \$6.52 the loading part of the cost \$22.82, as per column C, of age 53, the whole loading on a *level* premium at 53 is \$15.52 against \$5.69 loading upon a *level* premium at 25. Why this difference?

But does the law make any difference between the probable solvency of a company that is filled chiefly with persons above 40, when taken, and on whom there is a very large loading, and a company of persons, young when taken, and whose premiums, therefore, have a small loading? Yet upon ten thousand of the older, and in fact, inferior policies, there would be received \$100,000 more of "loading," and so much better showing given to the really inferior company.

If the law takes no note of loading, of course it takes no note of these differences. But these differences are observable and not a matter of assumption. Ought they not to be observed and their values computed?

Is there not also observable herein a muchness of improper payment by the insured for, as is pretended, the care of parts of his money? It would appear that \$9.00 for taking care of \$22.50 was a trifle too much! That abuse of confidence should be most earnestly condemned by the law, directly or indirectly.

Another fact to which I wish here to call your attention, and which you must have noticed, since it has been often enough mentioned, yet not as I remember, in just the view in which I will present it.

If a man pays these surplus premiums in advance, he is insuring himself to just so great a degree, while all the time his premiums are by computation made for a larger sum.

We will illustrate by the single premium at 25, \$326.58. The real cost of that year, by column C, is \$11.34, leaving \$315.24 sur-

plus above the cost of insurance during that year, with a year's interest to be added at end of year.

Now, the above premium, \$11.34, is said to be for \$1,000—while in fact it is only for that amount less \$315.24, or for \$684.76—for which the premium of \$1,000 is paid !

The same idea exists in whatever way a person pays a surplus or excess, toward a future premium, in advance. He insures himself in just so much, diminishing by just so much the risk that the company carries which continues to charge him the full amount of premium for this whole \$1,000. For if he dies, this, which was his during life as a deposit, immediately becomes the property of the company; and although he has paid the full amount of premium for \$1,000, besides the deposit, the company returns no part of it with the assurance. Is this right, or equitable, or necessary ?

Suppose that in our imaginations we follow a person through, from 25 to the age of 95 years, whether he pay by increasing premiums, or by *level* annual premium, or by single premium, what would be his condition, what would be the character of his "investment?" But it may be said that "If he was sure to live, he of course would not need insurance at all; but suppose he dies—the contingency against which he insures?" Then he certainly does not wish to pay in advance premiums, nor any part of them, for years to which he cannot live !

The paying of premiums at or for the high ages is a wicked absurdity, in whatever form and under whatever pretext it is presented—and however unwittingly the people are beguiled of their money. It should not only be discouraged and denounced by law but it should be *prohibited*, as it is directly or indirectly the Pandora box from which issue out all the leprous ills that fester and ulcerate in life insurance.

But there is a very inconsistent fallacy of the law in this, that while by its computations of reserves for the high ages, and its indirect, if not direct laudations of large assets, it encourages and appears to approve of the taking of premiums for the high ages, and also in the very worst form, viz.: 50 to 75 years in advance ! yet the same time all this is contrary to law; its *spirit* if not its letter and present interpretation.

It is certainly the *spirit* of the law to prohibit the making of insurance where there is no insurable interest; and although by many companies this has been loosely construed, or carelessly or wickedly neglected, inducing in numerous instances, without doubt, murders and various villainies; and although the courts have tolerated vari-

ous ways of getting around the true objection, yet, in face of all this the great truth stands out, and will ever stand out, that where there is no interest in the life insured—vesting in the assured—there can be no true assurance. Has not the law been sadly remiss in not having among its many toesins sounded one upon this important subject.

With few exceptions there cannot be any insurable interest in any person's life under 15 to 20, or over 65 to 70; and the law should definitely indicate that fact so clearly that there cannot be any mistaking it. In short, should prohibit everything of the kind both indirectly and directly.

Did I hear the word "arbitrary"? I did not expect that. But I now remember that I am surrounded by those who have been trained in that true American school, whose precepts are the traditions of the fathers, and by which liberty is held to be the foundation and capstone of all human blessings.

I also am your compeer in this; few will go so far as I in love of liberty or in hatred of the arbitrary, none farther.

You will not, therefore, have your good sense, nor your love of extreme American ideas, even if Western men, offended by me nor by the arguments which I will, with your permission, now adduce.

Dr. Edward Jarvis, in his very excellent paper upon the Political Economy of Life, in the last and best "Report of the Massachusetts Board of Health," says:

"The periods from birth to 20, and from 70 until death, are (with exceptions,) the unproductive periods of labor. From 20 to 70 is the productive period: during which labor not only supports itself, but stores for its old age, and supports several others under the supporting age."

This terse, very suggestive description, defines the insurable period, and the reasons for its existence, most admirably.

It is doubtful if many cases could be found in which a scientific and unbiased court would permit an assurance to be paid upon a risk outside the ages mentioned, but would, as it should, declare almost every such assurance void.

First,—Because it is against public policy to allow such policies.

Second,—Because there is no insurable interest in an unproductive life.

Third,—Because it is against the law voiding bets to make policies in which there is no insurable interest, or to continue them, since that which would be wrong *ab initio* would be wrong *in continuendo*.

Fourth,—Because a contract becomes *per se* void when the prime conditions no longer exist.

Whatever might now be the outcome of a judicial decision, I feel sure that in the near future in the legal opinion of all courts, whole-life policies, and any “term-life” extended beyond the productive periods, will not be considered subjects of a legitimate contract.

But there is another reason why it would be desirable to have the law—even if esteemed arbitrary—prohibit policies from pretending to cover assurance outside of the productive years of life.

Any life insurance law has, as the sole reason for its existence, the pretense of security to policyholders; for this there is but one panacea, the restriction of policies to the productive years of life; any more latitudinarian form jeopardizes security, which can be prevised by no man except under the above-named restriction.

Can the gentlemen who hear me say whether *any* company giving unrestricted policies has the vitality, or if you choose, the mortality correlative to its adopted tables? (In a parenthesis I may say just here, in passing, that the idea of the *vitality* of a company is not practically the exact correspondent of the idea of *mortality*. If the mind of the management of a company is constantly directed toward obtaining vitality there will be less mortality than if the constant endeavor is to avoid mortality; the mental state is different in the two cases, and if the question in regard to an applicant is, “How long can he live at best?” the effect will be more favorable upon a company than it will be if it asks, “How soon may he die?”)

Have you, gentlemen, any means of knowing whether any company, much less whether each of them, has the conditions in regard to vitality and mortality which by the law you are compelled to assume that it has?

This thought suggests another very serious and fundamental fallacy of the law. It assumes that the mortality of all companies will be the same, whether in the higher ages about which nobody knows anything in regard to any company, or in the lower ages in respect to which all of you must have noticed that there is a very great difference in different companies—many of them being far above the table mortality assumed by the laws. Such assumption appears preposterous to the last degree.

To refresh your minds I will exhibit the following table.

Certainly, gentlemen, it would not be in good taste for me to spend a moment in endeavoring to impress the minds of this audience with the lesson which this table teaches. It stands out too

No. of Deaths per thousand per annum in all Companies now living which did business in Massachusetts in the following years:

1869	1870	1871	1872	1873	1869	1870	1871	1872	1873
8.3	8.1	9.6	10.0	10.7	6.5	7.8	10.4	10.2	10.1
9.5	9.7	11.7	11.6	11.3	7.3	7.5	6.5	10.1	12.4
9.9	10.8	10.8	12.9	12.9	9.4	10.8	10.8	13.4	18.2
8.6	10.6	10.7	11.9	12.0	6.3	10.8	15.5	13.3	19.5
7.4	7.3	8.9	10.8	9.6	8.9	6.6	8.2	12.8	12.0
9.1	9.9	11.0	13.0	13.8	6.1	7.5	7.5	9.5	..
8.3	13.1	11.3	14.6	14.0	7.2	9.9	11.1	12.2	11.7
7.8	8.2	9.9	8.9	10.4	6.0	5.5	5.2	9.5	7.8
8.4	10.4	10.1	12.0	13.3	8.9	8.4	11.9	9.2	9.7
7.9	11.1	8.7	9.6	9.3	8.7	9.2	6.8	7.5	9.2
9.0	11.1	9.8	13.8	15.1	6.1	5.4	7.1	11.2	6.7
9.2	10.5	6.2	8.2	10.0	5.6	6.2	5.4	4.7	3.7
12.2	10.5	12.0	12.3	13.7	6.2	6.9	9.5	17.5	12.6
8.9	9.9	6.8	10.3	12.7	4.4	5.9	7.7	7.8	10.8
9.9	9.0	8.5	10.0	10.3	8.5	5.8	12.4	11.7	21.7
8.1	7.2	10.6	10.1	10.3	4.1	3.1	7.7	7.0	10.0
12.0	13.0	15.3	18.1	17.9	5.6	5.5	5.9	9.4	9.1
6.2	7.5	9.4	8.6	9.1	7.0	7.3	8.0	10.0	17.9
8.5	9.6	..	10.3	11.5	3.6	7.4	8.8	10.3	9.6
9.7	11.7	14.0	..	16.6	3.5	6.0	7.9	8.7	14.3
12.5	14.4	12.3	14.0	17.9	4.4	7.0	6.2	8.3	10.6
7.6	8.0	7.3	10.4	9.9					

prominently to the mind's-eye of those who know what it means to need any comment.

Note, if you please, the great difference in the number of deaths per thousand last year in different Companies. In one of the younger, 21; in a still younger 17; in another, 14; in older ones, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 7, 6, 3, and some tenths each.

Again, during the five years we find one with the figures: 12, 14, 12, 14, 18; another, 12, 13, 15, 18, 17; both old. One of the younger runs, 8, 5, 11, 11, 21, while the oldest of all stands only 8, 8, 9, 10, 10, and the smallest ratio of all is 5, 6, 5, 4, 3,—with some tenths in all these cases.

Can it be possible that it is just to assume one measure of mortality as applicable to all, when the figures show so plainly that it is not applicable to all; and to require of all the same reserves, and only the same reserves, and compare together the standing of companies by this unitary measure, when some are very much above it, and others as much below? Is it not time, and does not this table show that it is, to scout the wholesale averaging idea, both of in-

dividuals in companies and of companies together. Is there any language which the dignity of this occasion will permit me to use that will properly portray the absurdity and the gross wrong of this computing of the standing of companies? I beg of you, gentlemen, to give this matter considerate attention, and proceed in your several States to influence the revising of the law, that its requirements upon you may not be such a burlesque upon truth and science as the averaging of the mortality of companies must be.

Indeed, was not the "Actuaries' " table the result of *averaging* the losses in seventeen companies? Could it be a measure then for each of them? Since they did not have a common treasury was it a fair rule for all?

Is not the "Am. Experience" table chiefly the "experience" of one company? Shall it be assumed as the "experience" of the same company at a different time and under other management? Much less may it be assumed as the "experience" of other companies, as the preceding table proves.

In fact, is there, or can there be any rule or assumption that shall hold good for the mortality of any company during any great length of time, particularly if obligations are undertaken which extend through 50 to 75 years or more, involving millions of dollars?

But it appears that, for a company to pass muster with the law, all that is necessary is for it to have assets corresponding not to the death losses of its fictitious history—but to the assumption of the State at a much lower or higher figure than the reality.

Does it appear appropriate with pencil and slate to figure out liabilities upon average computations and wholesale assumptions, which are, in fact, dependent upon the correctness of the intelligence and judgment used in transacting the business, especially when the success or security of Life Insurance business is almost wholly dependent upon intelligence and judgment?

It will be allowed, upon all hands, that it would not answer to open the doors and insure all comers. It is allowed that the expert judgment and intelligence of some one is essential to keep the mortality *down to the table limit*, much more *to keep it below*.

The most important elements needed, therefore, for computing or assuming the liability of a company in regard to its mortality, current or ultimate, is a knowledge of the intelligence and judgment with which its medical examinations are made, or rather with which its "medical *supervision*" is conducted.

A table showing the degree of the medical intelligence and judgment having control in any company, would be the best test of the

company's security and of its real value to the assured policyholders.

Yet is it easy for this condition to be changed for the better or for the worse. There is no sure anchorage nor security which can be the certain basis of a long period computation.

Upon this subject I will refer you to a paper by Dr. Moreau Morris, not partisan, but written as the well-known papers and Reports of that gentleman were written when, (before he became Surgeon-in-Chief, and the responsible medical supervisor of the Company with which I am co-related,) for a long period he was at the head of the Sanitary Bureau of New York City, and wrote so much and so well for the public welfare in relation to Sanitary matters. It is his last Report to our Directors, yet will be equally instructive to any other Directors; it is very interesting to the general reader, and still more so to those at all interested in insurance topics, exhibiting the true methods of Medical Supervision and illustrating how it pertains to security, or rather is the cornerstone of security.

Again, I would ask the members of this convention if they have any security that large assets on hand to-day, for use 50 to 70 years hence, will be sacredly reserved with interest in each case?

Is it not then a decided fallacy of the law to assume that they will be kept? Is it not quite certain, that in many cases, by embezzlement, by ignorance, by misjudgment, by carelessness, by public disturbances, or otherwise, the so-called sacred fund will be ruinously deteriorated?

The question is often asked, that we have answered, about epidemics interfering with the security of life insurance. If the epidemic is a financial one, there is no salvation to the high assets methods of life insurance.

Is not the uncertainty of legal assumptions, the unreliability of the future, also observable by the public, and is not its credulity staggered thereby?

If these uncertainties, these unreliabilities, are necessary to life insurance, so great is its importance and value, that even so great cost must be undertaken for the sake of the balance of good.

But fortunately these hazards are not essential, nor any part of true life insurance; in fact, they are lets and hindrances to its working, they are blots and blemishes, even *sins* upon its fair character.

I am not an iconoclast, *per se*. I would merely remove the old that a better may take its place, and because a better is ready. As I would tear down an old house, leaking in the roof, with sills decayed, ugly in looks, inconvenient, expensive in use, to replace

it with a more substantial, more comely, less complicate, and more useful—at the same time much less expensive—structure. I have no patent to amuse or to repel you; no monopoly to offer, which “only one man can work;” no wonderful do-all without cost, making every man his own creator of riches. No, that with which I would have you replace the unsatisfactory, expensive and insecure machinery generally used, is very simple, as you will see.

Every advantage of true life insurance can be obtained without any chance of insecurity. The simple plan of policies restricted to the “productive period of life,” with natural premiums, will be a perfect panacea to “all the ills” that so-called life insurance is literally and numerously “heir to.”

These periods must also vary with individuals; for while the generalization of Dr. Jarvis extends the productive period from 20 to 70, it would not answer when applied individually. If it was so applied in insurance it would lead to a ruinous accumulation of inferior risks. He whose productive period will necessarily terminate at 50 must not be allowed a term of insurance extending to 70; again, one whose plateau extends to 80 need not be limited to 70.

The plateau of each man's life must be correctly judged, and his productive “term-life” conditioned thereby, or security will be jeopardized. It will be jeopardized under *any* mode of life insurance unless thus conditioned; for, although under the high premiums of endowment, ten-payment, and *level* annual-for-life, etc., more money is obtained than in “term-life,” there is never enough obtained to allow the insured to choose his “term,” or he will, nine cases in ten, “beat” the company; his term must be dictated to him by deliberative science after a full consideration of his risk. No company can afford to insure at ordinary rates against deaths from constitutional causes. Insurance should be sought only against incidental causes; nor can it be done otherwise with security.

As in every other important matter, every case must be viewed in regard to its differentiations, and only associated with others of its kind in the respects differentiated. The basic principle of mathematics is infracted every time that the doctrine of averages is applied to characteristics which can be differentiated; either *prevised* or in any way discerned.

If it is determined that there is an increased risk of dying each year among the insured, either from their natural constitution, which I deny, or from the accumulation of inferior risks, which I doubt, why not allow this increase to *be paid each year*? Why make the problem more complex by a “*level*” premium plan?

The pay as you go, "natural" "normal" business-like plan, seems to be the proper one—it is the proper one; THE ONLY PROPER ONE.

To pay money before it is due for something you may never want, and if you do want, can pay for it at the time when it is wanted, is not what men do in any other case.

To pay money before it is due, is to produce all the ills of so-called life insurance; for the law to encourage it, to countenance it, not to condemn it, not to prohibit it, is a serious fallacy in its consequences, very burdensome upon the officers of the State, upon companies, and upon policyholders.

In proof of the fallacy of the law, its unreliability, in regard to mortality, assets, etc., and its consequent burdensome effects, I think I can appeal to every Insurance officer, whether as members of this Convention, or at home in the performance of their duties, to bear witness that their duties are attended with great anxiety and a heavy burden of responsibility, on account of the uncertainty with which the life business is laden.

All of it, gentlemen, has its source and origin in the one cause, the provision for the pre-payment of premiums for the high ages. It is this which makes necessary the prodigious reserves of a large business: with all their temptations, and their *certain* uncertainties. It is this which makes doubtful the interest to be assumed, and the apparent necessity for assuming so low a rate that practically it appears extremely absurd. It is this which makes the probable mortality of a company baseless and conjectureless. It is this which makes the whole business assume gigantic proportions in every respect, and especially in respect to mystery and absurdity.

Gentlemen, cut off this provision for the pre-payment of premiums, cut off insurance at the high ages, and witness the result. The plague spot which was the source of all your anxieties, and of all the ridiculous absurdities that we have seen, is cauterized, and life insurance becomes healthful, pure and beautiful, lovely and attractive, the joy of the world. It is relegated to the category of fire and marine insurance. It becomes simple, more easily comprehended and supervised, than fire and marine insurance, as well as determinable in respect to security with much greater certainty.

The question merely is, What is the mortality—from year to year—of the practical or productive years of life, and what must be the loading (not by percentage) for doing the business? Let the amount corresponding to these be paid year by year, with such excess as is necessary to provide against any contingency, and when a person lapses his policy, or his "term" expires, let him receive a

return of any surplus to which he is equitably entitled,—and life insurance is perfectly simple, just, economical and *secure*.

If this be not a correct, practical method of life insurance, then is there *no foundation* for any *other* form; for every other is this one with something added.

Observe how little trouble State officials would have. The endless maze of contradictions and inconsistencies now so perplexing and vexing, would be as completely and instantly wiped out as the figures on a boy's slate are extinguished by a wet sponge.

Throw off the excess of endowment premiums, throw off the excess of ten- and other equal-payment premiums, including therein the excess of the *level* annual-for-life premium, and limit the periods to those years the *labor of which is productive*, and what do you have? Every thing that any body needs for protection of his family, for securing to them the income equivalent to that of his labor—something that is very simple, plain and efficient—all accomplished not by some prodigious mystery, but simply by cutting off unnecessary excesses of premiums which should never have been permitted to exist for a moment, but which have been invented and affixed for anything but creditable reasons; though the pretense has been that the assured were served, and they have been often so unreasoning as to believe and be beguiled to their great detriment.

Introduce this simple reform—this measure of it only—and the existence of large assets will be inexcusable, the expense of gathering them and again dispersing them will be saved—the great evil of taking them from the country and concentrating them in the business centres will cease at once; the speculation in real estate in the centres, encouraged by the ease with which loans upon that property can be effected through life companies, will subside, greatly to the advantage of those who wish practically to use real estate; and the money stored in it for a rise, to the detriment of every body, will be disseminated into and along all the channels of active living business, and promote in three ways at once, the prosperity and welfare of society; while morality will be promoted both by taking from agents the temptations to deceive, and from the public the temptation to induce officers to make loans for the sake of bonuses and commissions upon property not quite up to standard. While the extravagance now displayed in expensive buildings and furniture will have no sustenance, and the methods of doing life insurance will be relegated to the category of other honest business, sustained by integrity, intelligence, industry, and economy.

Another important result will be the annihilation of one of the

great dangers to our liberties, the trust accumulation of immense money power in the hands of a few.

Indeed, the good which will result from the restriction of policies to the productive period of life, with natural premiums, will be two-fold ; first, by the prevention of evils that wait upon the prepayment of high age premiums, and second, by the great development of the use of genuine insurance.

Another great advantage in this method will certainly be allowed. If any failure is about to occur it can be easily prevised, and if it occur after the premium is paid for the year, a person loses, as in case of a fire insurance, only a part of the year's premium. True, if he is in ill health, he cannot equally well become insured in another company—and this occasionally would be a calamity—but not so great as if insured under any other form, since he would have so much less to lose.

I know full well what objections will be made ; *made*, observe, *not found*, for they do not exist.

First, and *most* without reason, it will be said that a person would not wish to pay "natural" increasing premiums because, as one says, "they would become too large to pay, &c." To this, answer is made that they would not be inconveniently large until past the productive period. It certainly will not be well for any person to pay them now if he would not wish to pay them then.

Second. It is said that in "term" life a person will have no returns or dividends. That is a *non-sequiter*. That should depend upon how much he pays and what the business costs. Returns can be made if surplus exists, in "Term" just as well as in whole-life.

As a practical fact, the Stock Company with which I am associated makes a return this year to all its term-life policyholders, they have cost so little it could not honorably do otherwise.

Third. It is said that the premiums are not large enough to pay for doing the business. Especially it is said that the loadings are not sufficient. All that depends upon whether the net premiums are large enough, and whether the loadings are large enough. The cost of the deaths of a company and of doing its business are necessarily paid by the assured, whatever the form, and certainly it is as well for the assured to pay these costs under the name of "Term-life" premiums as under any other name. The beauty of the "term premium" is that it does not propose to cover more than the absolute cost yearly, and a surplus for extreme contingencies, returnable if not needed. Certainly the "Term-life" does not, and need not, cover a reserve for the "net" and "loading" of the mon-

strosity premiums of the very high ages—especially many years in advance. Whatever is needed for that purpose need not be taken, and yet equal safety exist; there can be no disallowing so much.

Fourth. It is said that the superior risks will lapse increasing premium policies, and leave an accumulation of inferior risks.

To this I might say that the same remark would be *more true* of any *other* form; but will answer that, inasmuch as the “experience” of companies has been under the lapsing privilege, and as a large part of the insured in all companies have lapsed, then of course their “experience” shows the effect of accumulation during the productive years of life, although no “experience” does yet, in this country, tell all the truth in regard to the high ages. Hence premiums based upon “experience” during productive years ought to cover an accumulation of inferior risks corresponding to that of the “experience” upon which the premiums are based.

If, in addition to this, the party applying is measured in regard to his plateau of life, there would be no possible danger of insecurity from the accumulation of inferior risks, particularly if a very small margin as part of the premium was paid therefor. The danger may and does exist in case of whole-life policies.

(I wish to say, in parenthesis, that the pretense that a part of the surplus paid by the assured should not be returned to him when he surrenders his policy, by lapsing, or by death, because of the accumulation of inferior risks, is undermined and exploded by the above conclusive argument.)

Fifth. It is also boldly said, “our *experience* has proved that the term-life business cannot be done without loss, since the policyholders select against the company,” etc. To this I say, “*our* experience” is just the contrary; we have fewer losses among term-life than among any other kind of policyholders. It is a poor Medical Supervisor, indeed, who cannot usually checkmate the intent of the policyholder. If he cannot, what is the particular saving by not giving the term-life? If a party is compelled to take an “annual-for-life *level* premium,” he pays only a little more compared with what he will receive, and he only has to take an extra thousand assurance to be ahead of the company, in that respect. That reasoning is, as the boys say, “too thin;” there is a reason back of the one given.

Sixth. If there be any other objection invented it has not yet been mentioned, to my knowledge.

I will now bring forward a high authority upon this matter. The Hon. William Barnes, in a New York State Report, says—

“If life premiums were graduated according to the annual risks of

death [viz. : were natural premiums] the accounts of life companies would, by their actual results, demonstrate the safety or danger of those companies to the same degree as the accounts of fire and marine companies demonstrate their safety or danger."

All that is to be said, then, is—Let the "life premiums" be "graduated according to the annual risk of death," and then let "the accounts of life companies * * by their actual results, demonstrate the safety or danger of those companies to the same degree as the accounts of fire and marine companies demonstrate theirs."

I will also, with pleasure, adduce two recent very high authorities. In a State Report, one Commissioner says :

"A Term-life policy to tide over the uncertain result of business enterprises, or the period in which the family is dependent upon its natural supporter, viz. : before children arrive at a suitable age to provide for themselves, is a valuable possession. This form of policy is now commending itself to general favor."

The beautiful truth of the expression "tide over" is worthy of note, as it so admirably contains the pith of all life insurance argument. Another goes still farther, and says :

"A policy of life insurance should have but one object,—the indemnity against loss to the beneficiary by the death of the insured, [and therefore it must be no other than the "Term-life"]. If other objects are kept in view,—large current dividends, tontine distributions, diminishing premiums, and the like,—the contract becomes a speculation, and is outside of a purely legitimate business, if there is not a true gambling feature in it.

"When the system is divested of all speculative features, and companies and agents learn to promise no more than is within a reasonable probability of fulfillment, the business will revive and the people will seek the security, their dependents need at the hands of companies able to give it."

These gentlemen become the strongest of authorities, because they announce the truth. Others might be quoted, and if we should go to the insurance press, we should find its writers almost unanimously wheeling into line.

That so many should, at various times, have stepped so near to the line of truth and yet not have seen the exact path should not excite criticism. It is ever thus in the history of the development of truth. It is often nearly touched yet not quite hit upon, and the slightest falling short is sometimes equal to the greatest distance in preventing the finding of it. Hence, life insurance, essentially English until very lately, has been regarded as mysterious, profound, a labyrinth of difficulties, instead of being recognized as the simple, comprehensible, beautiful provision for man which it is now seen to be when popularly Americanized.

Gentlemen, having finished my general discussion, to which I have endeavored to lend as much interest as possible by illustration and otherwise, I beg your considerate attention to a very brief exposition of a matter in which I feel a deep personal interest.

I would not make the requests that I am about to prefer, unless thinking that it will please you to grant them, and that the time has arrived when this will honor you and advance the grand cause. More than one of you can bear witness that we have not sought your powerful influence with the public, and, when proffered, have thanked the inducing kindness, replying "not yet, it will only make a target for misrepresentation and accusation ; let us wait until we can be benefited without risk of injury to any courageous friend." We could not feel otherwise towards any State Official with whom we now have relations, since from each we have received more than courtesy, and a consideration more than satisfactory; for it is exceedingly gratifying to have reason to highly esteem those whose official positions demand a formal respect.

None of your terms of office date back to the origin of the American Popular Life, and although some of you know its entire history, others have had no occasion to learn of its history, its object, or its purport, and to such it is merely one among many.

Nearly nine years ago it was organized with the intent of effecting a radical reform in the principles and methods of life insurance, chiefly in three respects.

1st, By demonstrating the correctness of the principles of Biometry, or the science and art of measuring life,—especially its grand application to life insurance.

2d, By simplifying the modes or forms of life insurance, and reducing its cost, by introducing the general use of "term-life" natural premium policies, to the exclusion of endowment, whole-life, and the whole brood of excessive premium, fungous growths, which had covered up the true motive—protection to the family.

3d, By condemning the lavish extravagance which on every hand was and is exciting distrust of a cause which it was pretending to support, develope and adorn.

True, the first of these objects had the first and strongest hold upon our affections, since it is of great worth in very, *very* many other relations besides those pertaining to life insurance.

The only method of demonstrating the correctness and great value of our ideas seemed to be through the competitive market test of life insurance ; when that was determined upon, it was also resolved to do the business *right*, in the other respects mentioned ,

hence we became, *volens volens*, radical reformers ; which involuntary position we accepted with zest and the determination that once having put our hands to the plough we would not look back.

We were willing to abide the test of time ; we asked not that all should lend a willing hand to help, we only asked for so much confidence as would enable us to test our ideas, for we would not be willingly placed in the position of the boy who was told "not to go into the water until he had learned to swim." We had faith in scientific prevision, believed it to be more reliable than purblind experience, and not attended with costly experiments, but we did not ask the whole world to pin their faith upon our sleeve.

"There is no such invigorating principle as faith. It is a principle of strength, and courage, and hope. Men who believe most are the strongest men. Doubters never accomplished anything. A doubter never discovered a new world ; nor invented a printing-press, nor a sewing machine. Doubters never constructed a Pacific railroad, nor an Ocean telegraph, [nor established the Science of Biometry.] A doubter never wrote an epic, nor built a Cathedral, nor painted a Madonna, nor chiseled a Venus de Medicis. A doubter never won a battle, nor founded an empire, nor inaugurated a successful revolution, nor added a statue to the temple of Fame. The world's best and bravest work has been done by believers, not by doubters.—REV. E. P. ROGERS.

We were willing to be slow and sure, to let the rising tide float us rather than to exert our strength in vain endeavors against an inertia that we could not overcome. We said it is, it must be, it will be. That time has come—we think.

We have alone, unaided, opposed and buffeted, in the beginning almost martyred, for nine long years, worked most earnestly for the cause of truth, of justice, of the public welfare in relation to Life Insurance. We *now* politely ask you, gentlemen, the proper guardians of the insurance interest to do—not as an act of friendship, not anything for us, but to the true cause of life insurance—simple justice, nothing more, nothing less.

We also ask of you,—as gentlemen of intelligence, interested in science, in the world's welfare and progress,—a plain, straight forward, and unflinching recognition of the facts and bearings of Biometry—especially upon life insurance—and of term-life methods ; that you will regard both the principles and methods favorably, and commend them decidedly, distinguishing, if you please, between the ideas and the company, between the enterprise and the enterprisers, but at least giving the full sanction of your private and official influence to the true plan upon which the business of Life Insurance should be conducted.

The first year of our enterprise, the Hon. Wm. Barnes, in his Report, speaks of our ideas as follows :

"Another Company (the American Popular) takes a wider hygienic range, and from all the physical and moral signs of longevity exhibited by an applicant, and the special law of family vitality, as deduced from ancestral tendencies, exhibited both in the direct and collateral relatives, essays to modify the general law of average expectation of human life as stated in the Table of Mortality, so as to accord with the special law governing the individual case, rating his expectation of life, or assumed age, up or down the scale of Table Expectation, according to the particular quantum of his unexpended vital force. No physician nor actuary will claim that a thousand or more lives admitted into a company on a uniform basis as 'sound' possess an equal amount either of actual vitality or of expectation of future life. If an expert was allowed to classify them, taking into consideration all the many physical and moral elements entering into the complex problem of determining the real expectation of life in each individual case, he would undoubtedly subdivide even a thousand lives into several classes. Reliable statistics have often shown that even peculiar occupations are favorable or unfavorable to longevity, for many of which neither extra nor reduced rates of premiums are usually charged by life insurance companies. Companies can undoubtedly gain advantages in actual status by a judicious and skillful selection of lives, although such advantages do not appear immediately upon the balance sheet nor annual statement, and can only be fully realized when a company attains maturity of growth at the end of the period of life of one generation. In this point of view, the services of a managing officer and medical adviser can only be thoroughly tested by the next generation.

If by "generation" the Hon. Mr. Barnes meant a life insurance generation, eight years upon an average, we will "rest our argument" by saying that he allowed all that we claimed, while he expressed our ideas very fully, forcibly, and beautifully, though suggesting in other words, perhaps rightly, that *we* might not be able to do the do-able. We will allow that criticism *then* made, to be forcible, but *now* proudly point to the *results* of our work as expressed in the mortality of the State Reports, and in our own more fully. But if, as it was the effort of our opponents to induce people to believe at the time, the Hon. Mr. Barnes meant an average life generation, 30 to 40 years, we dissent, most decidedly, as in fact everybody else, including himself, now dissents.

Yet, if Mr. Barnes intended, as we understood that he did, to emphasize the words "fully" and "thoroughly," we agree, whatever the time included; for Biometrical Science will develope for years, as its fundamental truths and deductions have been hundreds, thousands of years gradually coming to light. It appears new to some,

and as having attained maturity suddenly, because in several essential particulars, it has recently received a degree of completeness, finish, and applicability that is, to the world at large, very striking. But its main principles are no novelty; it is no mystery; its few rules can be soon learned and expertly applied by any well-educated medical man of judgment, skill, and tact. Three gentlemen have performed the responsible duties of *Surgeon-in-Chief*, or "Medical Supervisor," in our Company, in its nine years; the one now holding the position, with the shortest practical experience, proves, by his work, to be the best, which shows that this is no patent, no monopoly. I may also say that, although the language of Mr. Barnes does not define at all how much can be done in grading life risks, he did not probably suppose, more than we did ourselves, that the work could approach the surprising perfection what we find can be very easily reached.

In this, our ninth year, the ratio of our losses has been less than in any previous one since the second, less even than the surprisingly small ratio of last year, being in all the grades a little more than 3 per 1,000 policies insured, a ratio so small that its meaning cannot be over-looked, nor misunderstood. The diminishing ratio of our 6th, 7th, 8th, and 9th years surprised us, as it does every one, until we noticed the corresponding yearly predominating ratios of the best grades, in which the ratio has been very uniform, about 1 per 1,000 policies, which appears to be a marvel to the usual insurance student; it is merely a simple, necessary, natural phenomenon of life. Science would predict it.

Are we then egotistical, do we claim too much when we ask your approval that applicants can be and are by us graded scientifically *down* as well as up the scale of life, which determines the rate of their premium more truly—scientifically, equitably, economically, and securely—than is done in either fire or marine insurance? We have waited until we could say this without a perchance of denial; until even our business opponents allow the facts. If you cannot assent, we can go on as we have come thus far. No new action is essential to our farther success, but if worthy of your recognition, and we receive it, our success will be more rapid, our expenses lightened, and the public benefited.

Do you ask how your judgment shall be expressed? Let it be stated that when any company rates lives up or down upon what the Superintendent or Commissioner thinks a scientific basis, the computations of the standing of that company shall be upon such rating of age and premiums,—precisely as you treat fire and marine companies in the correlative matter.

Do you ask how you shall determine whether a company does rate scientifically? Easily: call for a random number of copies of policies and their correspondent applications, and the inspection of a very few will satisfy you; or a medical expert may aid you.

Doubtless the law now permits you to do this; if there is doubt, it can easily be removed by your influence.

Certainly the *spirit* of the law *requires* you to do this, for the sole purpose of the law is to produce *security* to the *policyholders*.

Nothing produces so much security as the insurance of best grade risks. To obtain them in large numbers they must be graded and receive favorable ratings. They mostly know quite well their valuable rights and prospects, and they will not be insured at average premiums; they feel and say that these are too high for their risks; yet they are willing to pay twice what their risks are really worth; hence are the most profitable to insurers.

But this also gives the company smaller premiums, while the law, as it has been usually interpreted, demands a reserve as large as if the risks were not half as good. If stockholders gladly put up the requisite capital as an investment, some of the Reports echo "impaired!"; the larger and better the business, the more capital needed, the more "impaired;" at which, magnified and misrepresented by competitors the applicant "starts up alarmed;" so that a compromise must be made upon a limited business; then comes the question: "If the plan is so good, why don't you do more?" In our fourth year, I believe it was, if we had made in November and December the 50 policies demanded, at the same rates as our best grades, we could not have remained in all the States. Making the same policies in the January after, was all right, in fact improved the Company the next year; that is to say, in plain Saxon, by the working of the law, the better such a company is, the worse it seems to be. Ought not such a law to be——changed?

Again, to produce the larger business it must be advertised, and other costly and profitable immaterial investments must be made, increasing the "impaired" and the "expenses," usable against a company; since also the construction account is all carried into current expenses, and a young constructing company is treated exactly like an old one, its ratio of insurance expeness is increased, which a proper law would lighten. It certainly is an artificial and fallacious condition which makes that which is essential to a company's thrift an element of its discomfiture. It must be wrong.

But if a business is mostly upon best grade risks, especially if insured by "term-life natural premium policies," the receipts and

assets in ratio to anything usually ratioed must be very much lower than when *level* premiums, upon whole-life, endowment, and other costly policies, are used. Yet the former are the useful, the scientific, the secure; the latter the extravagant, the speculative, the insecure.

Do not, however, all Reports under the law give especial prominence and favor to the latter, and oppress the former, in a most discouraging manner? It is, I know, a very solemn count against a law, that, in its working, it depresses the righteous and exalts the wicked. But is not the count true? Should not this be changed, and Insurance Law become what St. Paul says, that Law should be: "a terror to evil doers, and a praise to them who do well"?

Is it not becoming in us then to ask, and is it not proper in you to remedy all these wrongs?

Do you ask what I would suggest? Nothing wonderful, simply "To others do as ye would others should to you."

Let Officials in Reports be just as intelligently scrupulous in regard to the rights and facts of each company as, in their private capacity, they would be about uttering anything that would injure the business of a neighbor, or about commending him to the detriment of others. A wrong statement, ratio, or comparison, or one which can be twisted into a misrepresentation, if unintended, is not a libel, nor amenable to the ninth commandment, yet it may be equally injurious, and should be avoided, no matter at what pains.

It is the *intent* of the law, certainly, to do exact justice and to permit and encourage every scientific improvement, since whatever is scientific and just pertains to the security of business, and to the elevation of morals.

Can there then be given any reason why every new aspirant for honor and success in the conducting of a useful business should not have every favor and encouragement shown to him by the patriarchal guardians of that business?

Should he, full of fervor and of some new ideas fresh from the forge of science, be repressed and bid to fall back into the limbo of the musty past, unless it be quite certain that the legal assumptions which condemn him in that manner, are very surely based upon a rock? But when the bases are all sandy assumptions, and quicksands at that, as in case of the legal mortality basis, etc., etc., what shall be said?

Shall it be held that there is nothing new under the sun? Shall it be said, "the fathers have eaten sour grapes," and therefore their "sons' teeth are set on edge" forever?

THE AMERICAN POPULAR LIFE INSURANCE COMPANY, CONDUCTS THE BUSINESS OF LIFE INSURANCE

UPON PURELY SCIENTIFIC PRINCIPLES,

And it is the only Company that does, since it is the only Company which *grades and rates* applicants in correspondence with their *individual life expectation and consequent risk*, charging premiums accordingly, as is done in Fire, Marine, and in all other true insurance. It is the only Company which makes its *Medical Department* the basis and *groundwork* of its business.

Ignoring the general average plan of insuring all lives by their respective ages, without reference to individual peculiarities of constitution and probable lifetimes, *it charges premiums in accordance with the individual risk* as determined by careful scientific Biometrical Medical Analysis in each case.

It recognizes *professional knowledge* as *paramount* to the actuarial calculation of "general average" duration of life.

The *results* have been *fewer losses* per thousand policies than in any other company ever in existence. Its death ratios have been *less than four per thousand* for all grades, and less than *one per thousand* for the best grade—these so far outnumbering the inferior grades as to reduce the ratio of losses in all grades together, the reverse being true in all other companies.

By perfecting and applying the principles of Biometry to the study of life risks, the AMERICAN POPULAR secures beyond doubt the true probable expectation of life in each given case, and is thereby able to afford insurance at the lowest cost compatible with equity and safety.

Short-Lived risks are charged *higher in the same ratio* that *probably long-lived risks* are charged lower premiums, each risk being charged according to the grade to which it naturally belongs.

This **Principle of Biometrical or Physiological selection**, dependent essentially upon *professional or medical specialized expertness*, constitutes what is styled

"BED ROCK" or SCIENTIFIC INSURANCE.

The very nature of this principle demonstrates that the business of life insurance is primarily *dependent* for its *success and safety upon medical expertness therein*. Hence commends itself especially to the consideration and confidence of the medical profession.

Second.—Best method of Insurance for any grade.

The *methods* of insurance are secondary and wholly mathematical (actuarial). That recommended by this Company and which is the

best for all grades under ordinary circumstances, is "**Term Life**" **Insurance** (*natural premiums*). "Pay as you go." "Most assurance for the least money." This is styled

"HARD PAN" METHOD OF INSURANCE.

By combining "**Bed Rock**" Principle with "**Hard Pan**" Method, this Company offers to best grade risks

\$10,000 Assurance for \$60 Premium.

Third.—The transaction of the business between the Company and the public is its purely *commercial feature*.

These three distinct elements of the business plainly show that it can *only be conducted safely and equitably upon the basis of the application of correct, Scientific, Biometrical and Physiological knowledge*, such as *none other* than the *medical expert* can furnish, for only upon the proper selection of the risks primarily, can the Actuarial and Commercial elements be brought into successful execution.

Hence this Company asserts that this business *imperatively demands that the medical profession should insist upon its natural rights*, and that no Company can safely and successfully prosecute this business until it places its *medical department at its head*, or at least makes it equally responsible with all other of its Executive officers. The Emoluments as well as the Honors of this business should go to those whose responsibility and intelligence make it successful, and in corresponding proportion.

Hitherto the Actuarial and Commercial departments have almost wholly absorbed the honors and emoluments of the business, and failures have been the consequence.

This Company has placed the pyramid upon its base, and although it has been ridiculed as "a doctor's company," it can *proudly point to results*, and accepts the descriptive term as an honor to its directors and all who were concerned in its establishment, and are devoted to its successful prosecution.

Send for documents setting forth its death ratios and explaining its principles and methods, which cannot fail to be personally interesting to every medical man.

If by mail, send stamp to cover postage to the

AMERICAN POPULAR LIFE INSURANCE CO.,

419 & 421 Broadway,

Cor. Canal Street,

NEW YORK CITY.

Executive

Board.

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